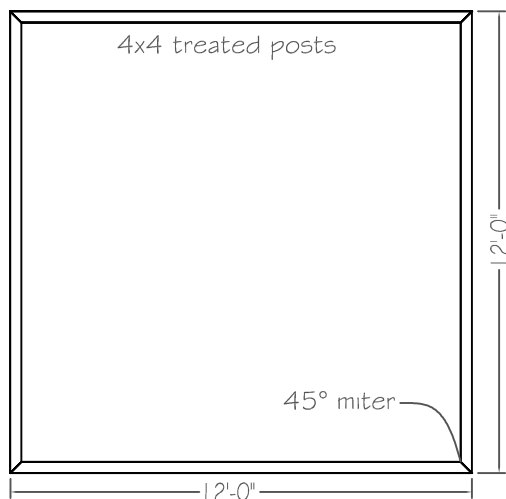


The first thing anyone will ever need before building a Country Cottage is a solid foundation. The foundation will help lift the Country Cottage off of the ground, prevent water intrusion, and give the Country Cottage a nice aesthetic look.

It is up to the builder as to what type of foundation to lay down, but we will offer several varieties that will work nicely.

The first is by far the simplest foundation. It is simply a couple of 4x4 treated posts that will "sit" under the flooring of the Country Cottage.

The pros and cons of this type of construction are listed below the diagram.

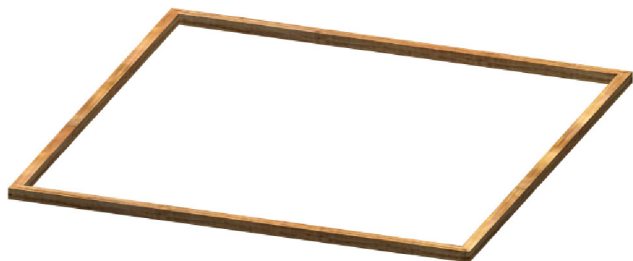


Pros: This type of construction makes the Country Cottage mobile. If you intend on being able to drag it around, I would suggest some heavy-duty lock casters.

Easy to assemble. Simply follow the diagram above for the length of your cuts and assemble with 5" lag screws. Countersink the heads of the lag screws (we recommend at least $\frac{3}{8}$ " \varnothing lag screws) so the heads will not impede the placement of the base planks.

Cons: Wooden. Even with the best maintenance, wood sitting directly on the ground is going to go bad eventually. You will need to put a coat of water-proofer around the base at least once a year.

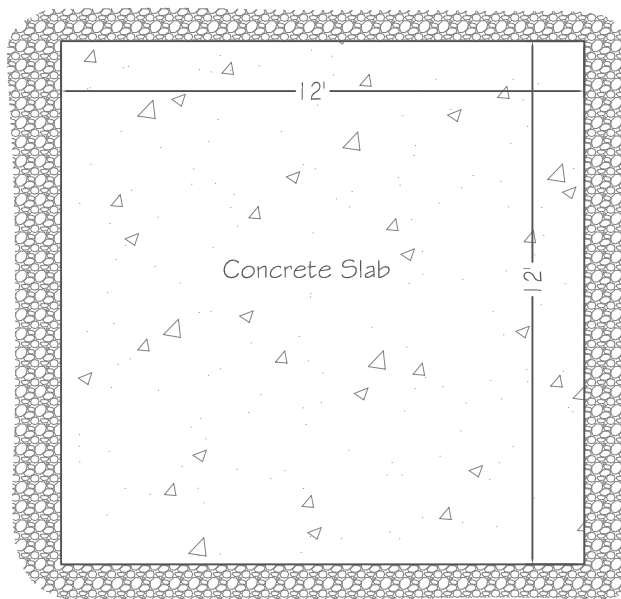
Stability. We recommend anchoring the Country Cottage to a finite position, especially if you live in a high-wind area where the wind may be able to blow the structure over. Plus, a concrete foundation will give you a flat, smooth surface to work upon.



The second type of foundation is the concrete foundation. These foundations generally take more time to complete, but they offer many advantages over a wooden foundation.

- 1) They are solid in the ground
- 2) They offer a flat, level work area
- 3) They do not require maintenance

The easiest type of foundation we would recommend is the slab foundation. This type of foundation offers good water drainage and will last longer than the Country Cottage itself.



The easiest way to pour a concrete slab is to dig a trench the width of the shovel blade and about 2" deep.

- 1) Start by laying out where you want the Country Cottage to go.
- 2) Build a FRAME out of 2x6 based on the internal dimensions above. Remember, they are INTERNAL dimensions, not external. If you want external dimensions, add 3" to the overall length and width of the concrete slab and those will be the external dimensions with the concrete PLUS the 2x6 frame.
- 3) Pour some (preferably washed) $\frac{3}{4}$ "-1" peat gravel into the trench (to aid in water drainage).
- 4) Place the concrete frame in the trench and tap or add gravel where necessary to get the frame level. Make sure you level the length, width, and diagonally across the corners of the frame!
- 5) Once the concrete frame is level, continue to pour only about 1" of peat gravel into the frame and smooth out with a shovel or rake. Make sure you have at least 3" of frame above ground level!
- 6) Pour quick drying concrete into the concrete frame and use a board or concrete level to smooth the top. Don't forget to tamp the concrete to ensure there aren't any air pockets! Fill the frame level with the top and let dry.

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Foundation Detail	Revision: 0	Drawing: 1
Date: 7-Mar-2010	Scale:	Varies

7) When you are done and the concrete is dry, take the concrete form apart and fill in any remaining gaps in the trench with topsoil and grass. Tamp around the concrete slab to get a good seal.

The finished slab should look something like the diagram below.

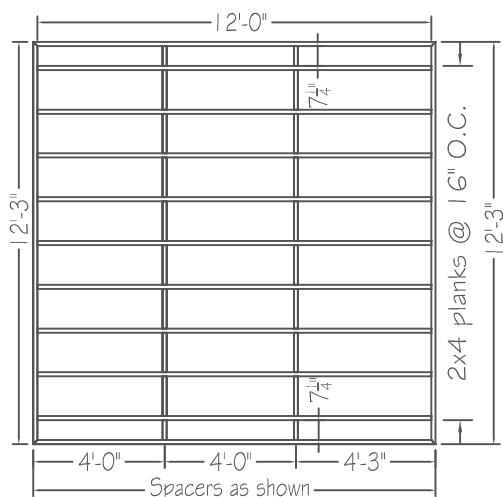
Hint: You can also follow the same instructions or use this slab for a shed, a gazebo, almost any small structure!



Congratulations! You now have a solid, long-lasting foundation to use for the Country Cottage!

Before beginning any construction, please ensure you have all the necessary safety equipment you will need. Always read and understand what the instructions are telling you to do BEFORE attempting any cutting. Make sure all measurements are precise (within $\frac{1}{16}$ "), and any miter angles match the opposing angle shown.

1) To begin, you will need four 14'-2x6 planks (see Materials) and nine 12'-0" 2x4 planks. Measure and cut the planks to the dimensions as shown below. Remember: Always check the actual length of boards. Some lumber manufacturers cut boards to length, some cut their boards a little longer!



You should recognize the internal dimensions as the same as the concrete slab you just poured or the wooden foundation constructed.

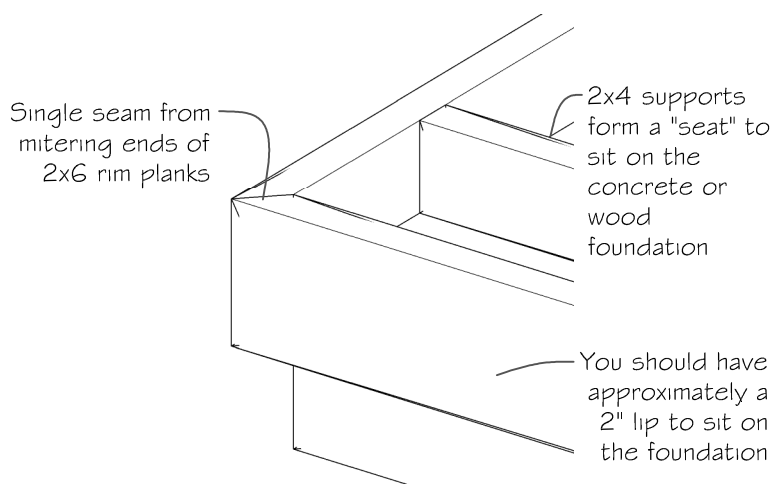
Hint: For aesthetic reasons, we recommend mitering the 2x6 rim plank ends at 45°, it will create a nice, single seam. This is, however, NOT necessary!

2) Construct the rim of the flooring with 2x6s and the internal supports with 2x4s. Make sure the 2x4s are flush with the bottom of the 2x6 frame! Assemble with nails or screws.

Hint: These plans are designed to be very solid and structurally sound. However, should budgetary constraints exist, the floor supports may be reduced to 16" O.C. (On Center). We recommend 12" centers, especially if you have a wooden foundation. 16" centers will work just fine if you have a concrete foundation.

3) Once the frame is complete and the 2x4s are flush with the bottom of the 2x6 rim, flip the entire floor over and you should be able to "sit" the flooring on top of the concrete (or wood) with a nice lip holding it tightly.

4) Use a rubber mallet or dead-blow hammer to tap the frame tightly onto the foundation.

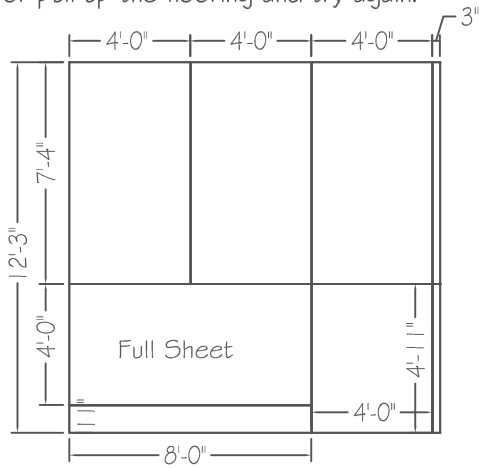


Materials	
Description:	Qty:
2x6x14' planks	4
2x4x12' planks	11

3-Dimensional Concepts		
15726 N. Park Dr. Frenchtown, MT, USA 59834		Cell: 406-546-6672
Title: Sub-flooring	Drawn: JSG	Approved:
Date: 7-Mar-2010	Revision: 0	Drawing: 2
	Scale: Specified	

For the flooring, we would recommend you spend a little extra and purchase some nice $\frac{3}{4}$ " cedar or oak plywood, or if you are planning on using carpet, $\frac{3}{4}$ " pine plywood will do just fine. Either way, we recommend using moisture barrier on the floor before laying the plywood flooring to prevent moisture from rotting the sheathing out from the bottom. Oak and Cedar have a much higher moisture tolerance than pine. We are assuming the Country Cottage is NOT going to be carpeted and will therefore continue as though hardwood flooring will be used. The principle is the same either way.

1) To begin, since the sub-floor should be 12'3"x12'3", you will need to rip down some 4'x8' plywood sheets. Lay them out right on top of the sub-floor and tack in place. It will be a little bit of a pain ripping all the sheets to the sizes shown, but this will ensure you have the maximum space for the area you are building in. Make absolutely sure the corners are flush and square or you will risk having to either rip one of the plywood sheets or pull up the flooring and try again!



As shown from the diagram above, you will have to rip several sheets of plywood. The easiest way to do this is to measure out the length of the plywood sheet and use either a table or circular saw to rip the sheet to it's proper dimensions. Hint: This goes WAY smoother with a snap line (aka. chalk line).



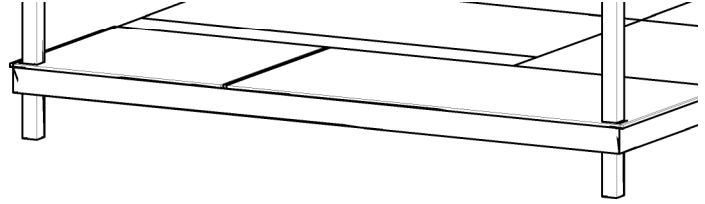
You should now have a nice platform with which to begin constructing the walls! Make sure the sheets are nice and level and the edges are square and flush. This will help around the time you begin the exterior sheathing.

Now we are going to begin working on the deck before we get too far ahead of ourselves. The deck will stretch all the way across the 12'-3" span and be 4' deep.

If you are building a shed, you may skip these steps!

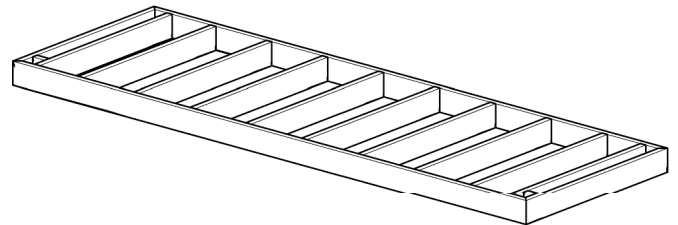
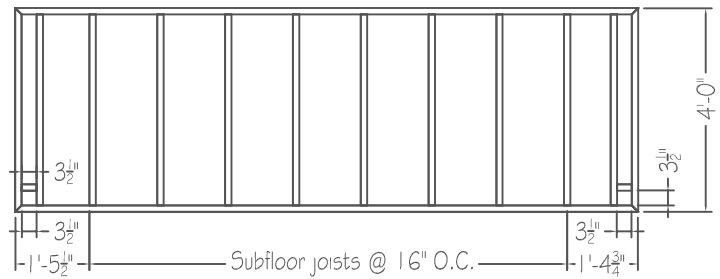
As with most actual houses, the deck will be a free standing deck just attached to the Country Cottage with nails.

We are going to make the deck a flush with the flooring so there is a smooth transition and nothing to step over.



We are going to outline the steps for creating a 4'x12'3" deck on the front of the Country Cottage. For these plans, this deck is necessary to support the roof that will cover the deck.

2) Begin by laying the deck as shown below with 2x6 planks. Miter the ends of the rim as shown for a single seam finish.



Materials

Description:	Qty:
4'x8' Plywood sheeting	6
2x6x4'	12
2x6x14'	2

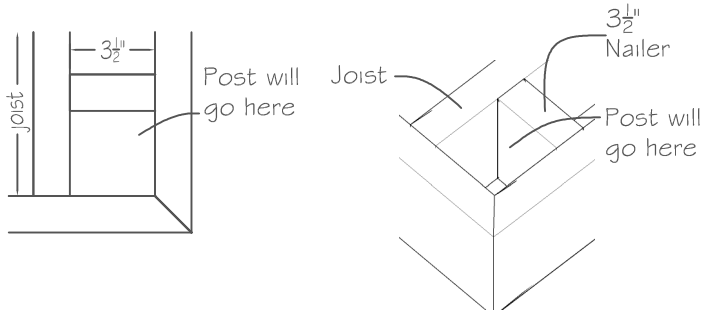
3-Dimensional Concepts

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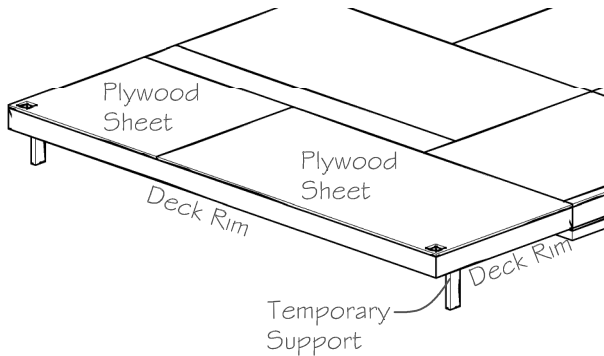
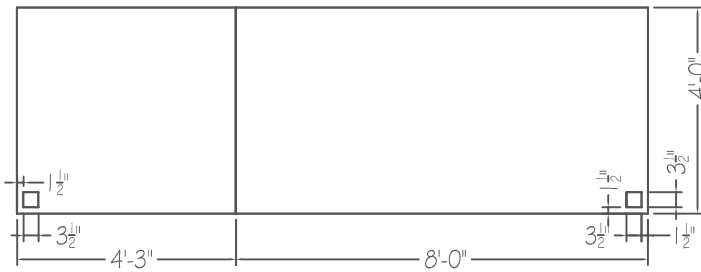
Title: Flooring & Decking	Drawn: JSG	Approved:
Date: 7-Mar-2010	Revision: 0	Drawing: 3
	Scale: Varies	

3) Here is a closer look at where the post will intersect the deck.



4) The last thing you will want to do before you put the posts in place is cut and place the decking sheeting (unless you feel you want to lift the sheeting 10' and slide it down the posts).

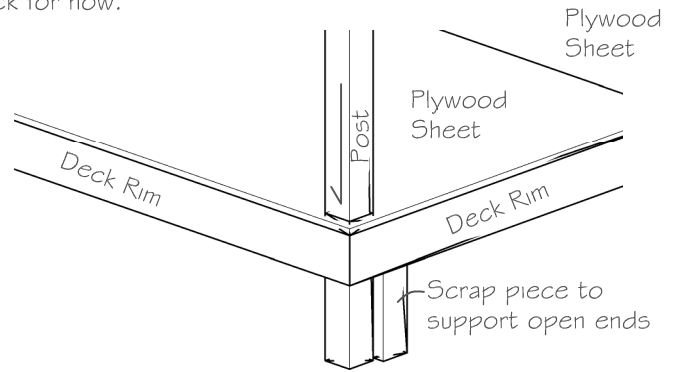
Cut a sheet of $\frac{3}{4}$ " cedar or oak plywood (yes, it should be cedar or oak as it will be open to the elements) as shown below.



Hint: Notice the scraps are a little offset from the edge, this is so you are free to align the posts in the next step without having to remove the temporary supports.



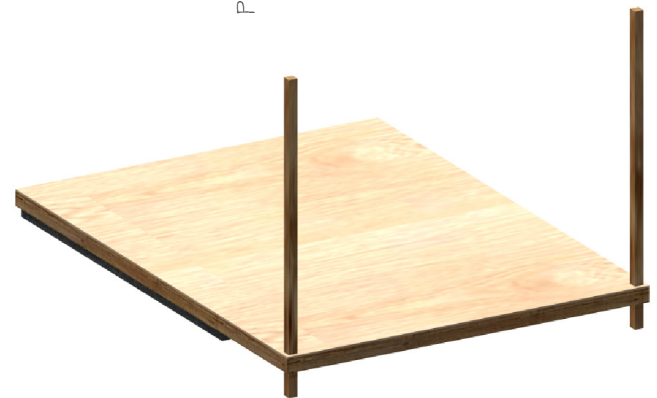
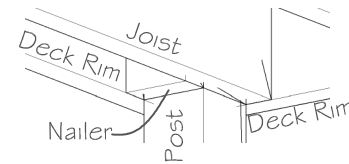
6) Alright, time to see if this works. You should be able to slide a 4x4 post right down into the holes in the decking. Leave the scrap pieces attached to take the weight of the deck for now.



Hint: You may also dig a post hole and place the post into the hole to solidify the placement of the deck. 1) Dig your post hole directly under the corner of the deck rim. Make the hole at least 12" deep. We are using a 10' post to accommodate any variation in height anyway. 2) Once you have the hole dug, have an assistant hold the post right in the corner of the deck rim while you tamp the post into place. 3) Fill any gap around the post and use a tamping bar to solidify post in place. Follow step 4) to continue.

7) Once you have the post anchored where you want it, with assistance, have your helper shimmy the deck up and down slightly until the deck is level on both sides and diagonally on the deck.

8) Once the deck is level, quickly nail or screw the rim to the post. If you wish, it is a good idea to go under the deck and attach the post, through the nailers, with a couple of $\frac{3}{8}$ "x3" lag screws.



Materials	
Description:	Qty:
4'x8' $\frac{3}{4}$ " Cedar or Oak Plywood	2

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Title:	Decking	Drawn: JSG	Approved:
Date:	07-Mar-2010	Revision: 0	Drawing: 4
		Scale:	Varies

Now, we are getting to the wall structures. This page details the construction of a shed wall.

Some things to remember:

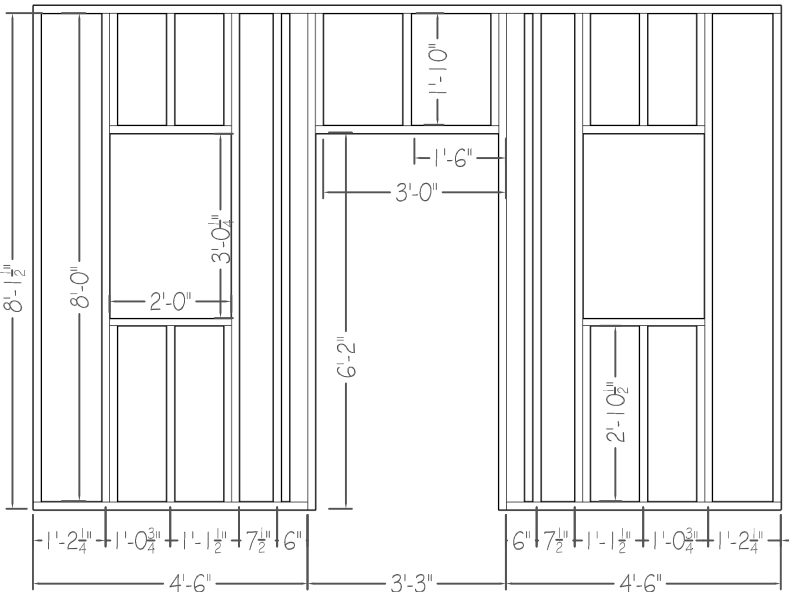
1) Always measure openings and cuts carefully!

2) Give yourself a small amount of rough opening space if you intend on purchasing windows and doors. We would recommend purchasing windows and doors prior to building wall structures so you may measure accurate rough openings. This set of plans will assist you in building some general doors and windows, but you may feel free to purchase doors or windows at your discretion. **PLANS MAY NEED TO BE ALTERED!**

3) These plans are to be intended as a guide ONLY! Should you choose to alter these plans at any time, remember to adjust measurements accordingly!

Now, time to start on the walls.

1) Start by cutting the entrance wall boards as shown below. Cut lengths carefully and make sure edges are flush and corners are square.



2) Assemble the entrance wall on the ground. Be careful when following the detail, there are many studs and it is easy to become confused. Refer to the full-color diagram below if you are having problems keeping the components in order.

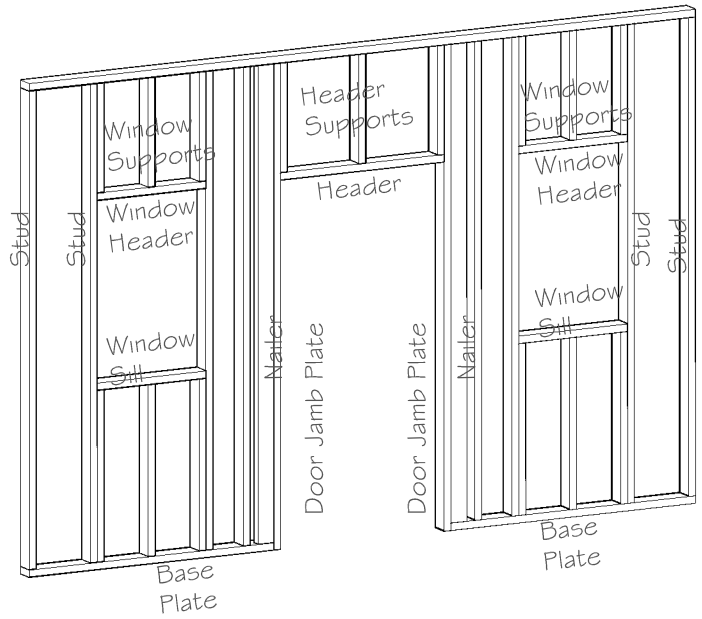
3) Start with the main outside frame. Assemble the base plate, sill plate, jamb plates and exterior studs.

4) Assemble one window structure at a time. Use a speed square and level to ensure timbers are straight vertically and horizontally. Repeat for the other side.

5) Layout the location of the window assemblies with a pencil and insert into the assembled exterior frame.

6) Assemble the door header assembly and locate in the main door location. These dimensions may change depending on if you decide to purchase or build the door! Measure carefully!

7) There is a vertical nailer on either side of the door frame. You will need these if you follow these directions and make your own door. If you purchased a door to install, you may neglect to install these nailers.



Materials

Description:	Qty:
2x4x10' Stud	12
2x4x2'10 1/2" Window Studs	6
2x4x1'10" Header Support	9
2x4x3' Header	1
2x4x2' Window Sill & Header	4
2x4x4'7 1/4" Base Plate	2
2x4x14' Sill Plate	1

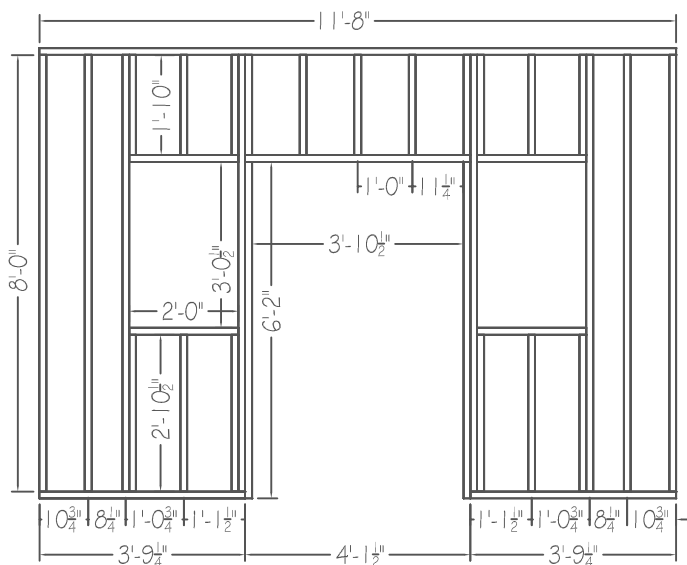
3-Dimensional Concepts

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Title: Front Wall (SHED)	Drawn: JSG	Approved:
Date: 07-Mar-2010	Revision: 0	Drawing: 5
	Scale: Varies	

1) For the side walls, the biggest thing is to center the window assemblies properly. As with the front wall, follow the diagram below and layout the wall on the ground before assembling.



As you can see, the side walls are not as complex as the front wall. But you will need two of these side walls.

2) Once the walls are assembled, have an assistant help you put them in place on the platform. They should butt against the front wall.

3) Use a level to ensure the walls are straight vertically and attach to the flooring with nails or screws. Make sure the door frame is square or it will cause problems later!

4) Assemble the side walls on the ground. Be careful when following the detail, there are many studs and it is easy to become confused. Refer to the full-color diagram below if you are having problems keeping the components in order.

5) Start with the main outside frame. Assemble the base plate, sill plate, and exterior studs.

6) Assemble the window structure. Use a speed square and level to ensure timbers are straight vertically and horizontally.

7) Layout the location of the window assemblies with a pencil and insert into the assembled exterior frame.

8) Attach the remaining studs as shown.

9) Repeat steps 1-9 for remaining side wall.



Materials

Description:	Qty:
2x4x8' Stud	8
2x4x1'8" Plate	4
2x4x2' Window Sill & Header	4
2x4x1'10" Window Stud	11
2x4x3'10 1/2" Header	1
2x4x6'2" Jamb Plate	2

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Cell: 406-546-6672

Title: Side Wall (SHED)	Drawn: JSG	Approved:
Date: 07-Mar-2010	Revision: 0	Drawing: 6
	Scale: Varies	

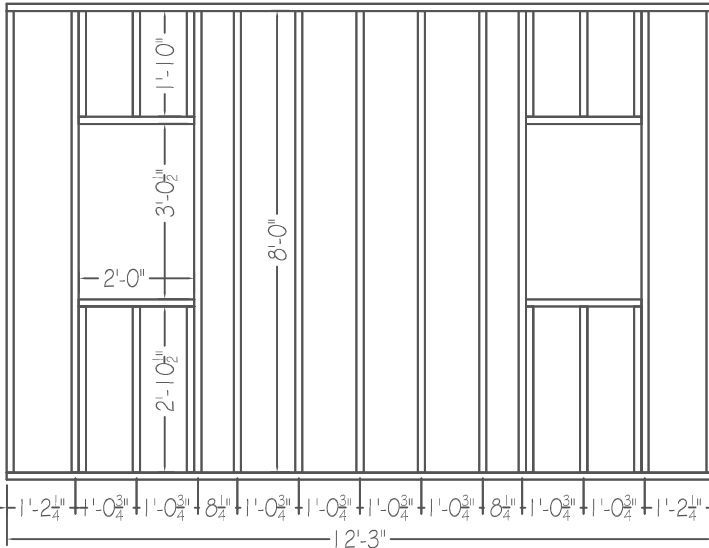
Now, we are getting to the rear wall structure.
Some things to remember:

1) Always measure openings and cuts carefully!

2) Give yourself a small amount of rough opening space if you intend on purchasing windows and doors. We would recommend purchasing windows and doors prior to building wall structures so you may measure accurate rough openings. This set of plans will assist you in building some general doors and windows, but you may feel free to purchase doors or windows at your discretion.
PLANS MAY NEED TO BE ALTERED!

3) These plans are to be intended as a guide ONLY! Should you choose to alter these plans at any time, remember to adjust measurements accordingly!

1) Start by cutting the rear wall timbers as shown below. Cut lengths carefully and make sure edges are flush and corners are square.



4) Assemble the rear wall on the ground. Be careful when following the detail, there are many studs and it is easy to become confused. Refer to the full-color diagram below if you are having problems keeping the components in order.

5) Start with the main outside frame. Assemble the base plate, sill plate, and exterior studs.

6) Assemble the window structures. Use a speed square and level to ensure timbers are straight vertically and horizontally.

7) Layout the location of the window assemblies with a pencil and insert into the assembled exterior frame.

8) Attach the remaining studs as shown.



Materials

Description:	Qty:
2x4x8' Stud	11
2x4x14' Plate	2
2x4x2' Window Sill & Header	4
2x4x2' 10 1/2" Window Stud	6
2x4x1' 10" Window Stud	6

3-Dimensional Concepts

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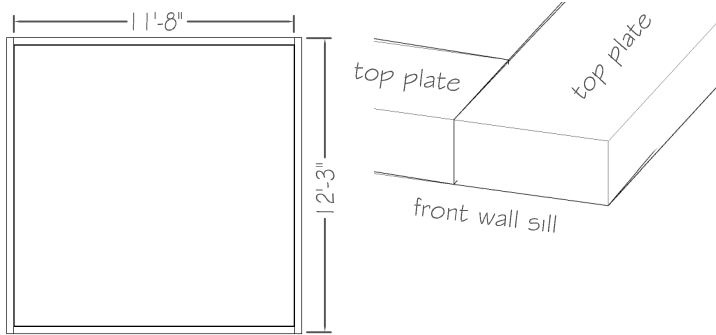
Cell: 406-546-6672

Title: Rear Wall Assembly	Drawn: JSG	Approved:
Date: 01-Mar-2010	Revision: 0	Drawing: 7
	Scale: Varies	

The next step, you will need to add a top plate to the top of the walls. The top plate serves two purposes: 1) It provides additional support to the roof structure. There will be tons of weight in the rafters and purlins, the top plate will help the walls disperse that weight correctly. 2) It connects the tops of the walls better. It will keep the top edges of the wall from "splitting" out under the weight of the sub-roof and roofing.

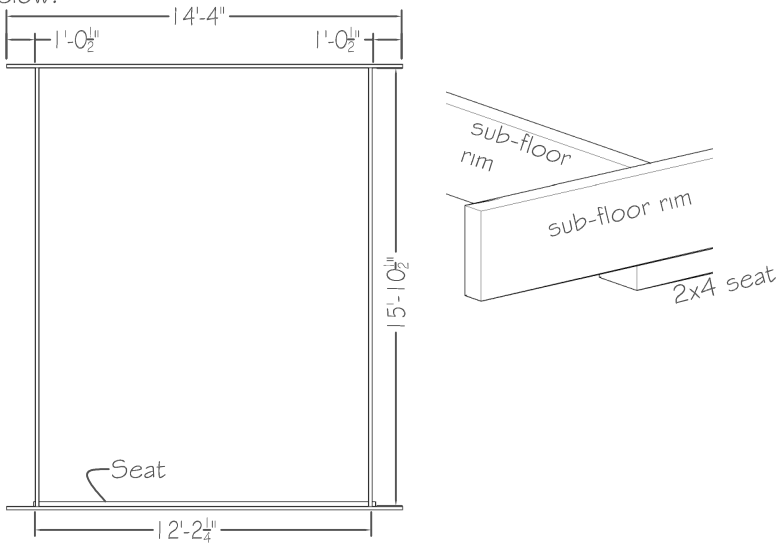
So, here we go! This plan will work for either the shed or the playhouse as they are built!

1) Cut the top plate boards as shown. If you look closely you will see that they overlap the wall sill plates and tie them together.



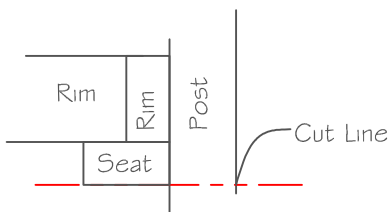
Before you get to the rafters and purlins, it would be a good idea to frame in a sub roof. The sub-roof acts just like the sub-floor where it supports sheathing for the ceiling and makes the top of the structure more rigid.

2) Layout and assemble the 2x6 sub-roof rim boards as shown below.



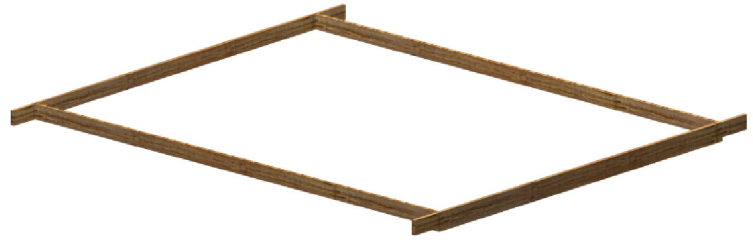
3) To find where to cut the deck posts, after you have the sub-roofing constructed, have an assistant help you lift the sub-roof onto the top sill. Square up and level the corners the best you can while your assistant holds the front of the sub-roofing against the posts.

4) Use a pencil to mark where the sub-roof connects with the posts. Make sure you use a level to ensure the sub-roof is level. See diagram below.



5) Cut the post off as flat as you can. Use a level and make sure the top is as flat and level as possible.

6) With assistance, hoist the sub-roof frame onto the wall structures. Center the structure as best as you can. Use the side rim planks as a guide. The sides should align with the very exterior edge of the top plate. Use a square and level to ensure corners are flush and even. The result should look like the image below.



This diagram shows the shed walls, but if you built a playhouse, no problem! These plans are designed so that the roof system will fit both!

Materials

Description:	Qty:
2x4x 14' Plank	3
2x4x 12' Plank	2
2x6x 16' Plank	4

3-Dimensional Concepts

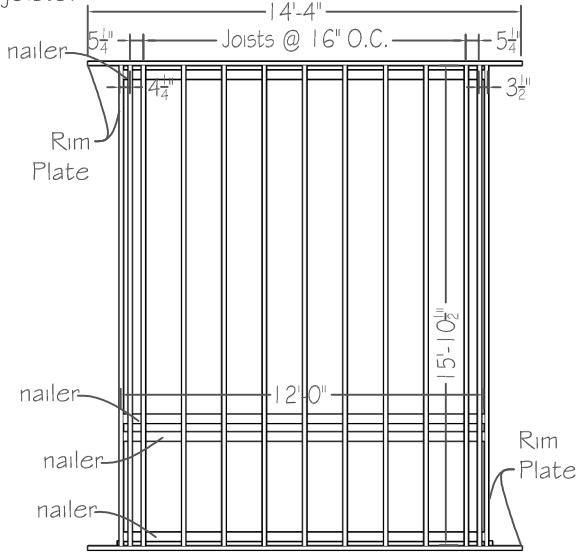
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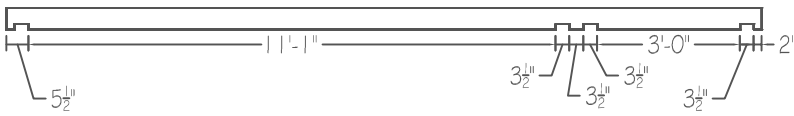
Title: Sub-roof Assembly	Drawn: JSG	Approved:
Date: 01-Mar-2010	Revision: 0	Drawing: 8
	Scale: Varies	

Before we get the actual rafters, you will need to layout the rafter locations and give them some bottom support as well as giving yourself joists to nail ceiling materials onto.

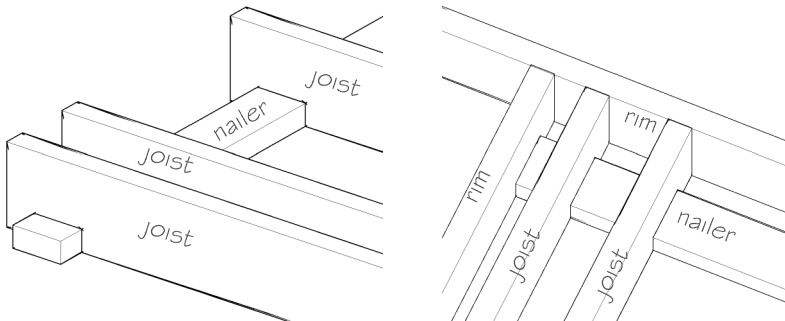
1) Begin by laying out the sub-roof joists as shown below. These are 2x6 joists.



You will need to cut seats for nailers in the joists so that you always have a nice, solid edge to nail the roofing materials to. This is NOT required, but it is HIGHLY RECOMMENDED. We do NOT recommend, or endorse floating corners!



2) Once you get the seats cut out and BEFORE you attach the sub-floor joists in place, go ahead and layout your nailers into place. You should have a nice, even surface with which to attach materials.

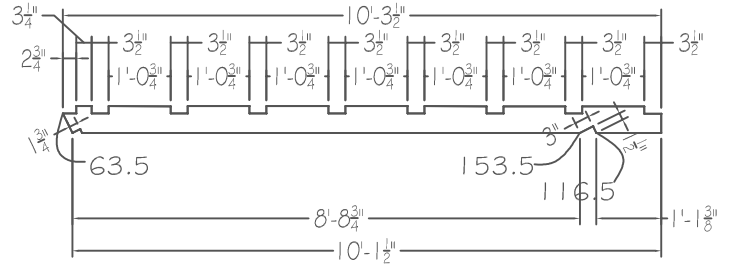


To do this:

- 1) Layout your first joists inside the rim.
- 3) Do not nail the joists down as you will have to move them to get the nailers into place.
- 3) The nailers will "sit" on top of the top plate just inside the sub-roof rim.
- 4) Once you have the two nailers inside the walls put into place, it should be a simple matter to align the rest of the joists in their locations and tap them down onto the nailers.
- 5) Use a hammer to tap the joists perpendicular with the nailers and use a carpenter square and a level to ensure the surfaces are nice and flush and even.

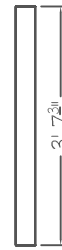
Now, time for the rafters.

1) You will need 26 total rafters. So follow the diagram below. DO NOT FORGET to cut the seats for the purlins (horizontal 2x4s).

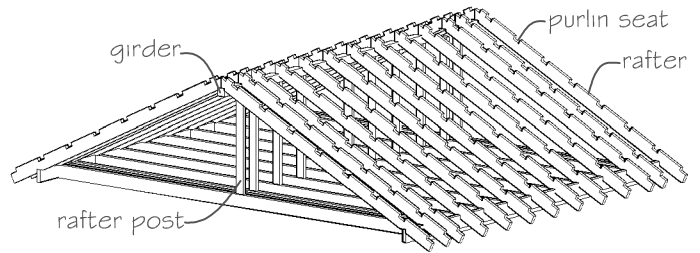


Note: If you know how to use a speed square to cut bird-mouths, it will come in VERY handy right now!

2) The rafters will align with the sub-floor joists below them. You do NOT need a rafter above the nailers and we did NOT include them in these plans. If you wish to add them, go ahead!



Before you put the rafters up, you will want to put up these rafter posts and a girder. The posts support the girder, which, in turn, support the rafters. Got it? Good! The rafter support (left) is 2x4 and the girder (below) is 4x4 post.



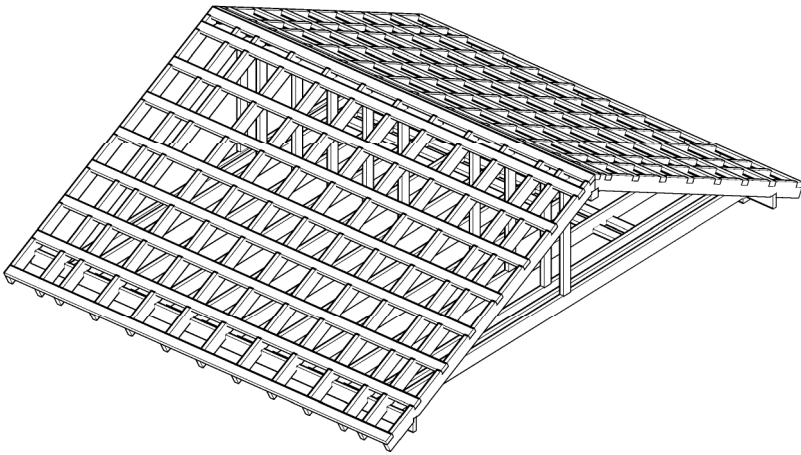
Again, the rafters go over every sub-roof joist and on the very outside edges of the rim joists. Center the girder by measuring from the rafter supports. MAKE SURE THE SUPPORTS ARE SQUARE BEFORE USING AS A REFERENCE POINT. If you wish, leave the girder at 16' in length and "eye-ball" the girder placement, as long as it sticks out beyond the rim joists.

Materials	
Description:	Qty:
4x4x 16' Girder	1
2x6x 12' Rafter	26
2x6x 16' Sub-roof Joists	11
2x4x 16' Nailer	4
2x4x4' Rafter Support	9

3-Dimensional Concepts

15726 N. Park Dr. Frenchtown, MT, USA 59834		Cell: 406-546-6672	
Title: Sub-roof and Rafters	Drawn: JSG	Approved:	
Date: 01-Mar-2010	Revision: 0	Drawing: 9	
	Scale: Varies		

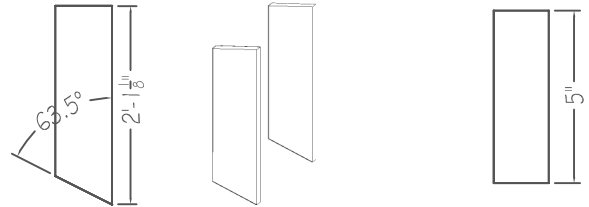
3) Once you have the rafters up, you will need to add the purlins for structural integrity. The purlins are simply cut-to-length planks placed in the seats. Make ABSOLUTELY SURE the rafters are level vertically before nailing any purlins to them! Once you get to the top, it is very frustrating to find the rafters were kicked out and you are off by more than a foot!



If you are constructing a shed, once the purlins are in place, CONGRATULATIONS! The main structural components are complete and now it is time to sheath the structure and make it look good. For the playhouse, continue onto step 4 for the dormers. We will cover the roof sheathing in the pages that follow, but for continuity, we will cover the dormer construction on this page.

4) Once the roof is sheathed, you will want to build the dormer before you get around to roofing material. Start by determining the amount of dormers you want. This example has 2, but you may want three or more. It's up to the builder.

5) Once you have the amount of dormers you want. You will need to cut two 2x4 dormer posts and a girder post as shown below. Remember, these instructions contain details for 1 dormer, simply copy as many times as desired!



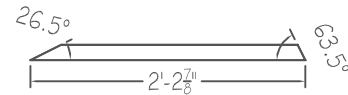
6) Now, the 2x4 front plate (below).



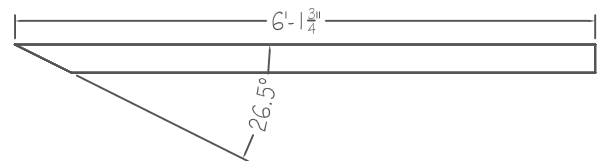
7) The 2x4 header (below).



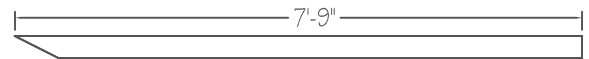
8) Two 4x4 side plates, ripped in half or purchased (yes, below).



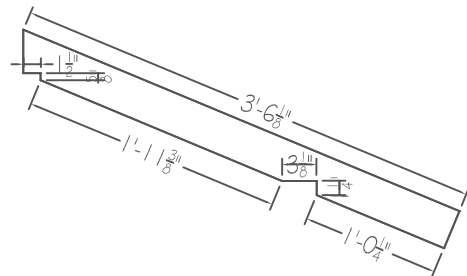
9) Two 4x4 rafter supports (you get the idea).



10) One 4x4 girder (it's longer because of the roof pitch).



11) 6 dormer rafters. (You will need to cut the very rear rafters to match the roof pitch). Construction is much the same for the seats. These are short enough they will not need purlin seats cut out of them.



Materials

Description:	Qty:
2x4x14' Purlin	18

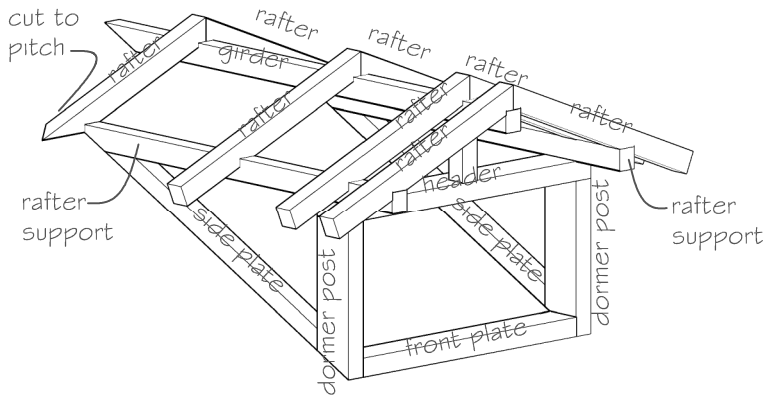
3-Dimensional Concepts

15726 N. Park Dr.
Frenchtown, MT, USA 59834

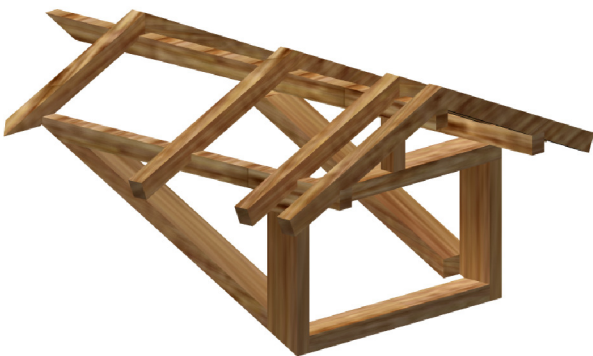
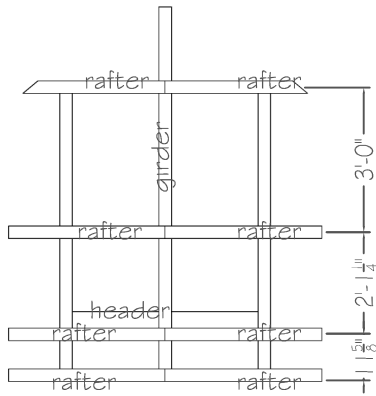
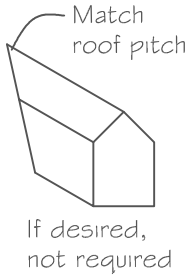
Cell: 406-546-6672

Title: Rafters Continued	Drawn: JSG	Approved:
Date: 07-Mar-2010	Revision: 0	Drawing: 10
	Scale: Varies	

Now that you have all of the components, you may opt to construct the dormer either on the ground or on the roof. You will have to construct the rear rafters on the roof so you can cut the rafters to the roof pitch.

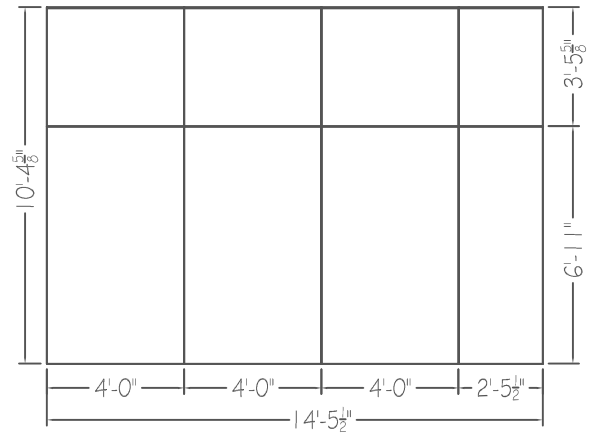


For the rear rafters, you will have to cut both the ends and shave the bottom to match the roof pitch. If you are a little off, most of the time you can hide any small errors with the roof sheathing, but be CAREFUL and plan your cuts thoroughly! If you wish, you may cut a 2x4 pitched seat for the very end that sits on the roof line. This is not required as you will tie the dormer sheathing directly to the roof sheathing.

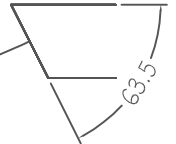


HINT: Cut the very front rafters, but DO NOT ATTACH! You will sheath the front of the dormer first, then you will be able to attach the front rafter before moving on to the dormer sheathing!

1) Now since you have the dormer structure pretty much taken care of except for the rear rafters (which you may already have anyway), we will start with sheathing the roof. Start by cutting 4x8' cedar or oak plywood sheets to the dimensions shown. Yes, we recommend oak or cedar because of their water and insect resistant properties.



You do not have to miter the roof sheathing, but we recommend it for a nice, clean seam.



2) Mirror the cuts made above for the other side of the roof. Once the sheathing is on, go ahead and position the dormer(s) as you like!



Materials	
Description:	Qty:
2x4x8' Dormer Post and Girder	3
2x4x8' Front Plate & Header	1
2x4x6' Side Plate & Rafter Support	2
2x4x12' Rafter	1

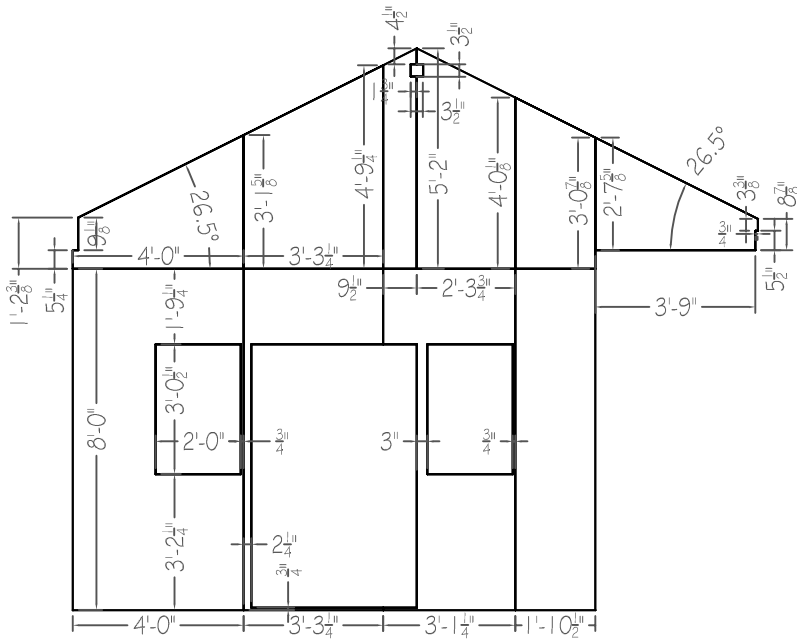
3-Dimensional Concepts

15726 N. Park Dr. Frenchtown, MT, USA 59834		Cell: 406-546-6672
Title: Dormer & Roof Sheathing	Drawn: JSG	Approved:
Date: 01-Mar-2010	Revision: 0	Drawing: 11
	Scale: Varies	

Sheeting is relatively simple and can be completed easily. The primary tools you will be using are a jig saw, table saw (if you have one) and a circular saw. We would recommend at least sheeting the exterior with pine plywood. You may add additional sheeting, which we will detail further in the appendix, but it will not be required.

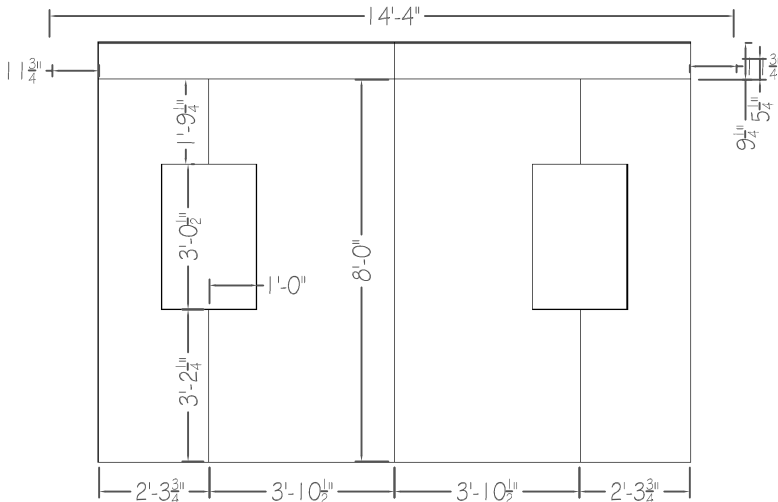
1) OK, we recommend you start with the side walls. The total length of the side walls is 8'-0" so you will need 2 sheets for the walls, and 1 sheet for the roof sheeting.

2) Cut sheeting as shown below. Always check your dimensions. We recommend having an assistant help you hold the roofing sheet up so you can tack the sheet to the rafters. Then take a pencil, or better yet, a snap line, and layout the cut you need to make. Don't forget the filler piece!

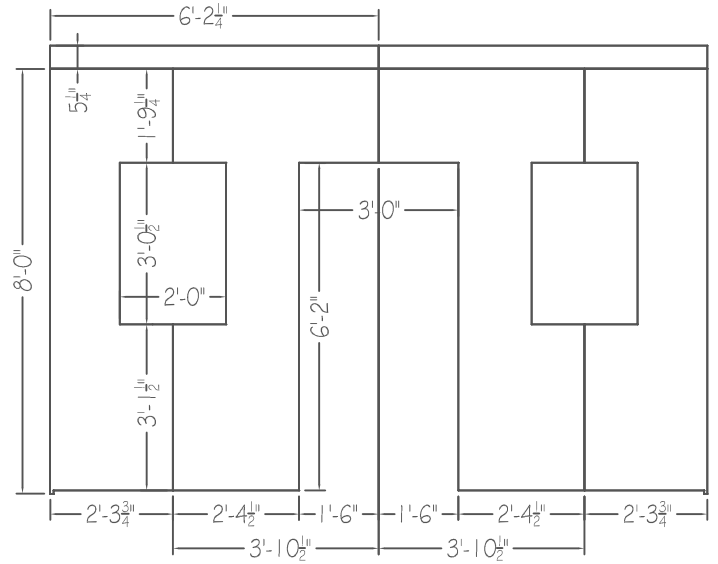


Take your time and cut lines and angles carefully. We recommend tacking the sheeting up to the walls and laying out the window cut. Don't forget to drill yourself a pilot hole for the jigsaw. Drill it just inside the corner so you have a place to start. Construct and attach each piece one at a time, that way you can get better measurements!

3) We will continue with the rear sheeting. This is possibly the easiest sheeting you will do. Just butt the piece under the rafters up tight against the bottom of the rafters. We recommend mitering the top to match the roof pitch. You will cover the connection with a soffit later. Remember: Always measure your own cuts!



4) The front wall sheeting is probably the easiest. Just windows and the door to take into account. We added the little overlap in the bottom corners just so things are even and flush.



Congratulations! You are almost finished! Just to finish sheathing the dormer, adding the doors and windows and add trim and veneer!



Materials	
Description:	Qty:
4x8'x3/4" Plywood sheeting	12

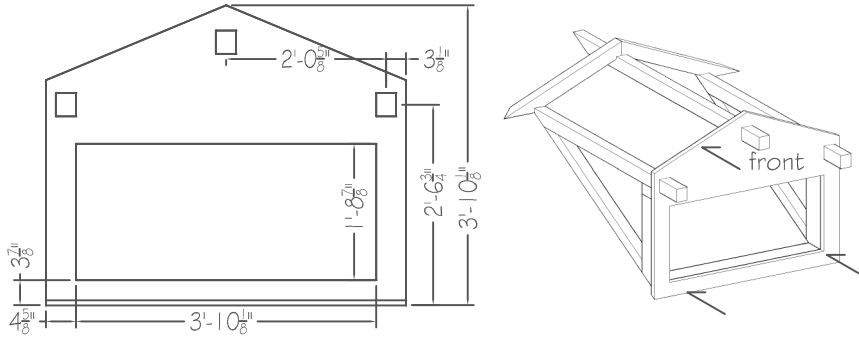
3-Dimensional Concepts

15726 N. Park Dr. Frenchtown, MT, USA 59834		Cell: 406-546-6672	
Title: Playhouse Sheeting	Drawn: JSG	Approved:	
Date: 07-Mar-2010	Revision: 0	Drawing: 12	
Scale: Varies			

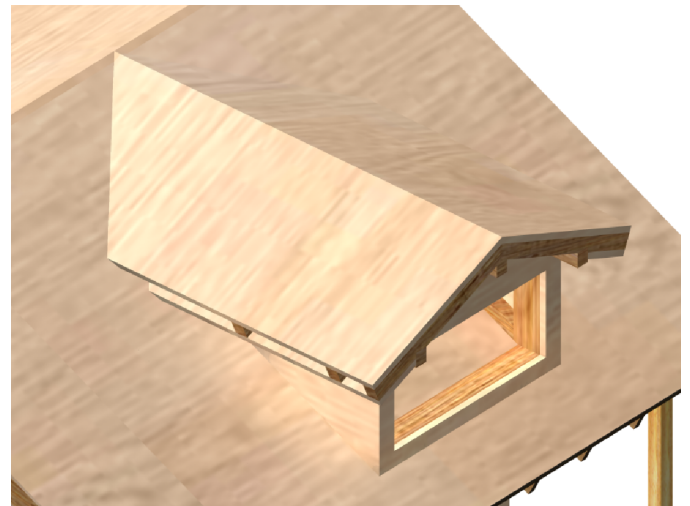
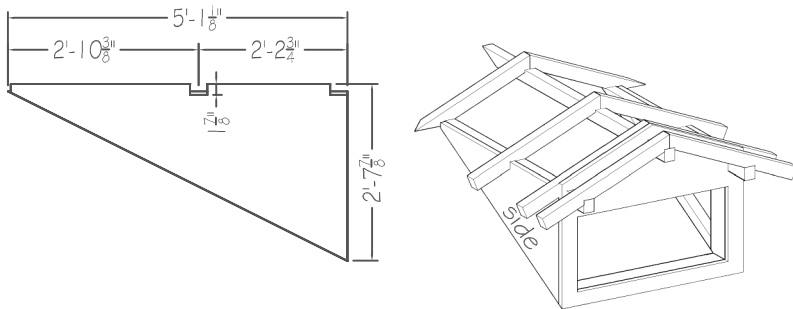
For the playhouse, you will need to sheath the dormer roof. It isn't too hard at all. Follow the diagrams and you should not have any problems. Cut the sheathing to overall dimensions then trim.

1) Remember that we recommended that you not connect the very front rafters on the dormer? If you miter the bottom edge of the plywood sheet so it matches the roof pitch, you should be able to "slide" the sheathing against the front structure of the dormer.

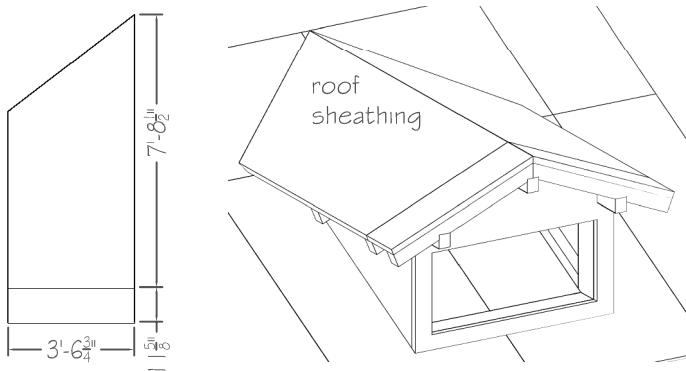
Remember to re-measure to make sure your dimensions are accurate! Measure twice, cut once!



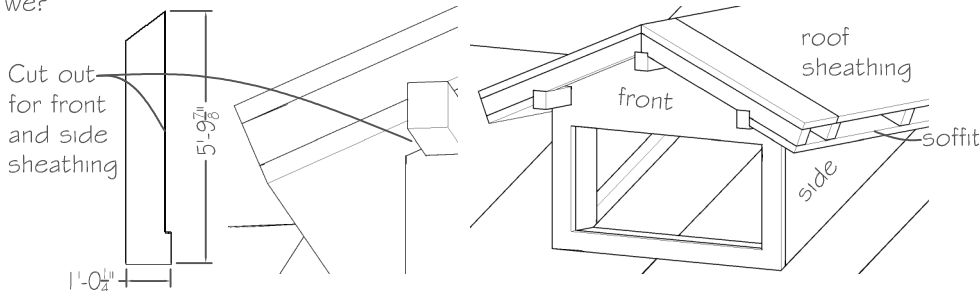
2) The side are easy by comparison. Simply triangles with rafter seats cut out.



3) For the roof, simply miter the ends so they will sit against the roof sheathing below them.



4) Since you are on the roof and the soffit is similar to the dormer roof sheathing, you may as well cut the soffit. We don't want wasps and other undesirables building nests under the roof sheathing do we?



Materials

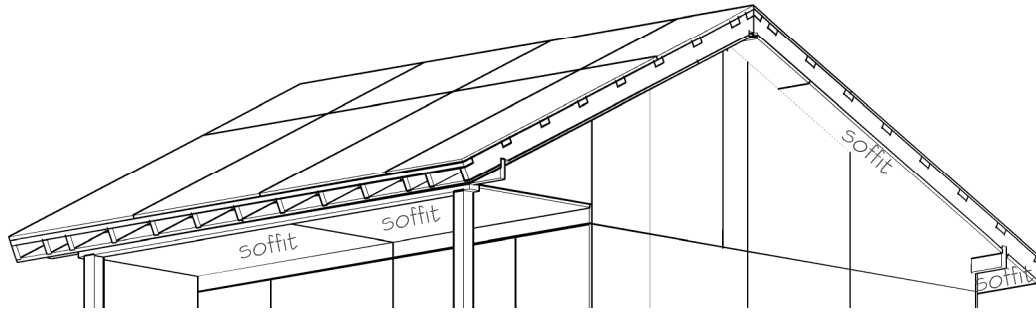
Description:	Qty:
4x8x3/4 Plywood Sheet	5

3-Dimensional Concepts

15726 N. Park Dr. Frenchtown, MT, USA 59834		Cell: 406-546-6672
Title: Dormer Sheathing	Drawn: JSG	Approved:
Date: 01-Mar-2010	Revision: 0	Drawing: 13
	Scale: Varies	

Alright, now that the dormer is sheathed, all that is left is to trim the playhouse. We will show some basic trim, but to trim all you really need is a lot of 1x6 board (exterior trim board is recommended).

1) We recommend you begin by adding soffits to the bottom of the roof structure just like with the dormer. The soffit is just a cover that will keep bugs and water from infiltrating the structure and causing damage. There are two primary places where a soffit would be best placed, under the overhangs or the roof and the porch ceiling. The soffits will be required on both the playhouse and the shed, so we will show just the soffits below. We do recommend mitering the angles so you have a nice, flush end, but you may opt to thoroughly seal any connections where the boards meet with a waterproof sealant.



Now it's a matter of covering the main connections with trim to really make the Country Cottage look nice. **BEFORE ADDING TRIM, MAKE SURE YOU SEAL ANY PLACE WOOD CONNECTS, ADD VENEERS (IF ANY), AND ADD ROOFING! TRYING TO ADD THESE AROUND TRIM IS DIFFICULT! IT IS BEST TO PLACE TRIM AFTERWARDS (JUST LIKE ADDING INTERIOR TRIM AFTER PAINTING THE WALL INSTEAD OF BEFORE).**

ALSO, TRIM IS NOT REQUIRED. IF BUDGETARY CONSTRAINTS PROHIBIT ADDING TRIM, SIMPLY USE A 1x6 TO ACT AS A FASCIA BOARD AND TO CLOSE THE ENDS OF THE RAFTERS!

For trim, we find it is easiest to locate and number the components. We generally try to shy away from definite trim sizes and lengths as building methods vary slightly and you need to measure as precisely as possible on trim-work. All angles are similar to anything done earlier so there should NOT be any surprises.

A few hints:

1) Do not frame around doors or windows until doors and windows are installed! We recommend purchasing doors and windows but we have included some generic plans for building your own.

2) If you are using siding, place the main trim board first. Then side. If you are using veneer or batten, trim over the connections.

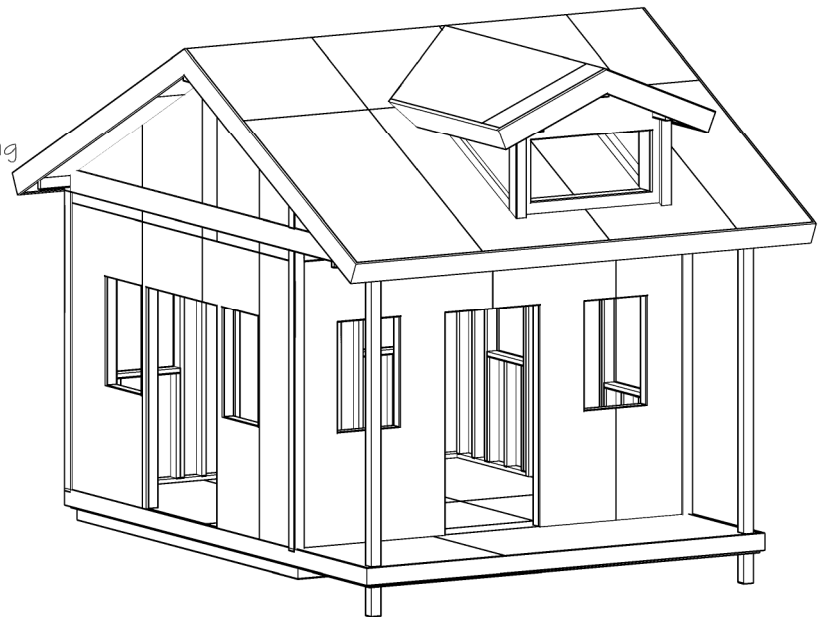


Image below shown with veneer and tin roofing!



3-Dimensional Concepts

15726 N. Park Dr.
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Cell: 406-546-6672

Title:	Trim	Drawn: JSG	Approved:
Revision:	0	Revision: 0	Drawing: 14
Date:	01-Mar-2010	Scale:	Varies

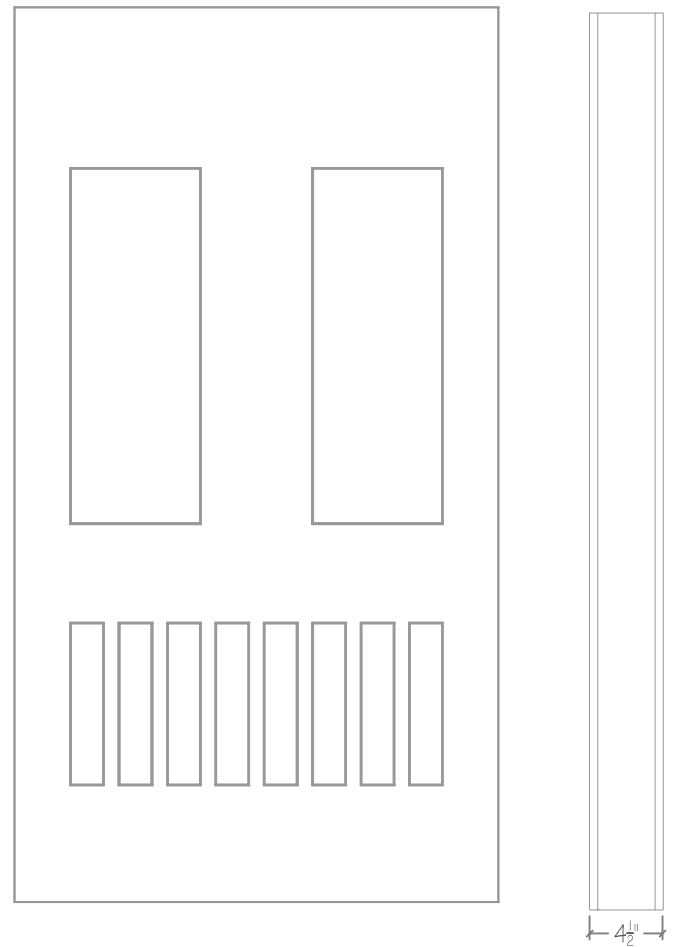
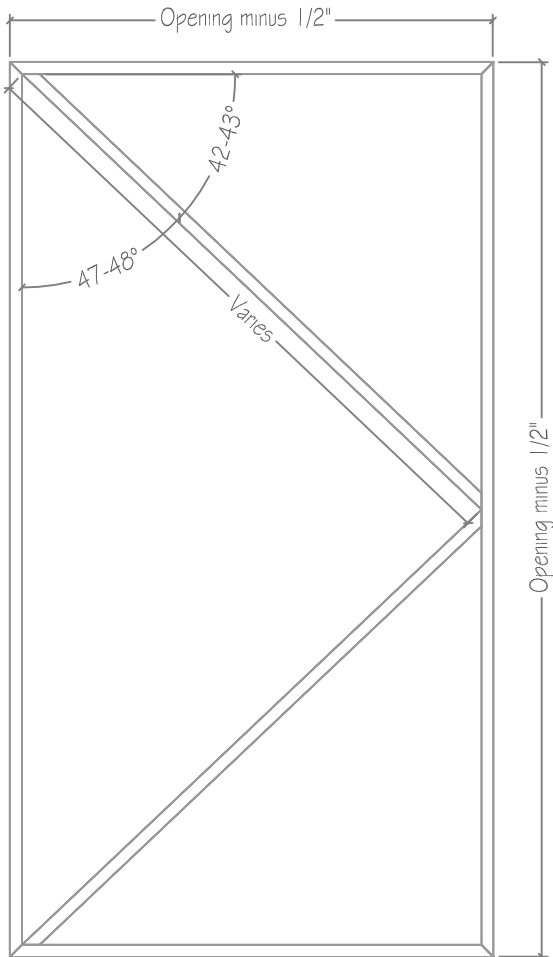
For the door, construction is relatively simple. If you want to install a latch, that is up to you. We do not show the details because there are special tools involved, most of which the normal person does not have. However, if you DO happen to come across such tools, you will be able to add a doorknob and catch should you desire.

As with the window, this is a very simple door and you do NOT have to construct the door in this way.

If you prefer to purchase a door, make sure the rough opening size is adequate.

The frame rough opening in this instance is $2'-6\frac{1}{2}" \times 5'6"$, minus $\frac{1}{2}"$ for swing on both the sides and the top and bottom, that leaves a door size of $2'-6" \times 5'5\frac{1}{2}"$.

1) To begin, we are using 1'4 planks and $\frac{1}{2}"$ plywood sheeting. Cut the frame pieces as shown below. You DO NOT have to miter the corners, we just recommend it for aesthetic purposes.



2 Attach the front panel to the door frame, and **MAKE SURE THE CORNERS ARE SQUARE** and edges are flush. You may even want to sand the corners of the inside swing so they are rounded a little bit.

3) Insulate the door with either blow foam or regular R-13 roll insulation will work.

4) Enclose the door with the second panel. You may want to round the edges on this side also.

5) A single slide bolt works wonders on the outside and inside to lock the door shut. **If you don't want your kids to be able to lock the door, only install the slide bolt on the outside!** The slide bolt also offers a grip to pull the door open.

We will show the door in this example with a pattern cut out of the front and back sheeting, but this is not required. It is purely for looks and does not affect the integrity of the door at all.

Before you attach the panel to the door frame, you will want to check the swing in the doorway. We have allowed for $\frac{1}{2}"$ swing, but depending on construction methods and accuracy, swing may be affected by as much as 1".

Please ensure the frame will swing in the opening without getting stuck or caught. You should allow more swing once you add the door panels so check after each step to ensure swing is not impeded.

Materials

Description:	Qty:
1x4x6' Planks	5
4x8x $\frac{1}{2}"$ Plywood Sheet	2
Hinges	3

3-Dimensional Concepts

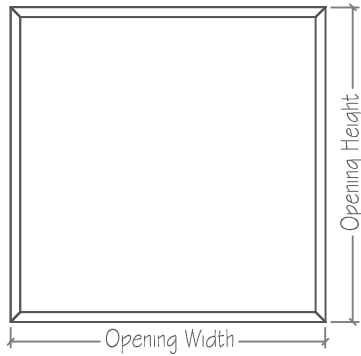
15726 N. Park Dr.
Frenchtown, MT, USA 59834

Cell: 406-546-6672

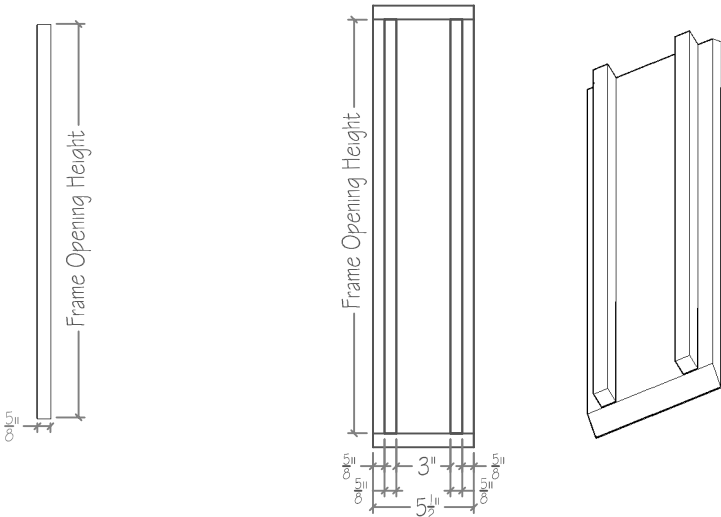
Title: Door Assembly	Drawn: JSG	Approved:
Date: 01-Mar-2010	Revision: 0	Drawing: 15
	Scale: Varies	

Windows are complicated to design and when at all possible, should be purchased. These details are for a very simple sliding window. You will need, and know how to use, a miter saw, a router (preferably with a guide) or table saw with an adjustable gouging blade (or blade kit, and a square (speed square, carpenter square, either works).

1) Cut and miter 1x6 planks as shown below. DO NOT ASSEMBLE YET!

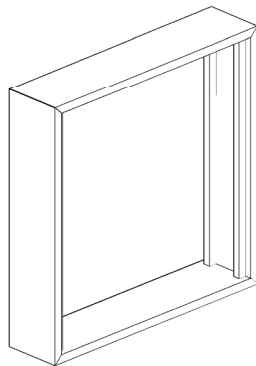


2) Rip a 1x4x8' into strips $\frac{5}{8}$ " thick. These will serve many purposes in the future but for now, we just want four of them to match the opening, so either rip and cut one piece or rip an entire board into $\frac{5}{8}$ " strips and place the pieces to the side for late.



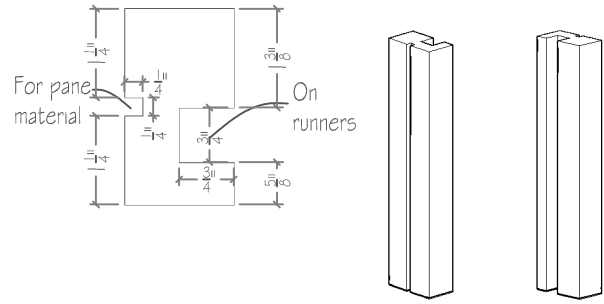
3) Using 1" screws and a level, screw two runners onto one of the exterior frame pieces. Repeat for the second side (see above).

4) Check to make sure the runners will fit inside the frame when assembled. Make any adjustments if necessary. DO NOT ASSEMBLE!

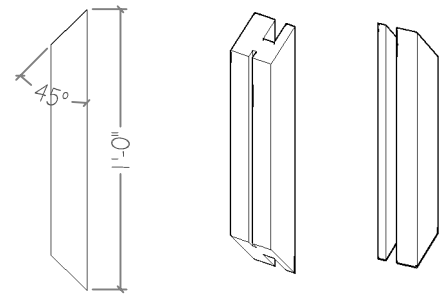


3) Rip a 8'-2x6 down the center lengthwise.

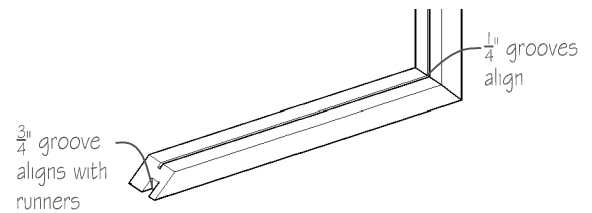
4) Use a router to gouge a $\frac{3}{4}$ "x $\frac{3}{4}$ " groove down the center of one side. Flip the board over and gouge a $\frac{1}{4}$ "x $\frac{1}{4}$ " groove down the center of the other side (see detail)



5) Miter the ends. Make sure the narrow ($\frac{1}{4}$ "x $\frac{1}{4}$ ") groove is facing inwards! The wide ($\frac{3}{4}$ "x $\frac{3}{4}$ ") grooves go out toward the runners, the inside grooves will hold a pane of window material.



6) Rip a 2x6 lengthwise down the middle and miter ends as shown below. Run a $\frac{1}{4}$ "x $\frac{1}{4}$ " groove down the middle, just as with the 2x6 above. Hold them together and MAKE SURE THE GROOVES ALIGN PROPERLY! You will need to gouge a $\frac{3}{4}$ "x $\frac{3}{4}$ " groove out of the ends.



Materials

Description:	Qty:
2x6x6' Planks	24
1x6x8' Planks	6
1x4x8' Planks	6

3-Dimensional Concepts

15726 N. Park Dr. Frenchtown, MT, USA 59834 Cell: 406-546-6672

Title: Windows	Drawn: JSG	Approved:
Date: 01-Mar-2010	Revision: 0	Drawing: 16
	Scale: Varies	

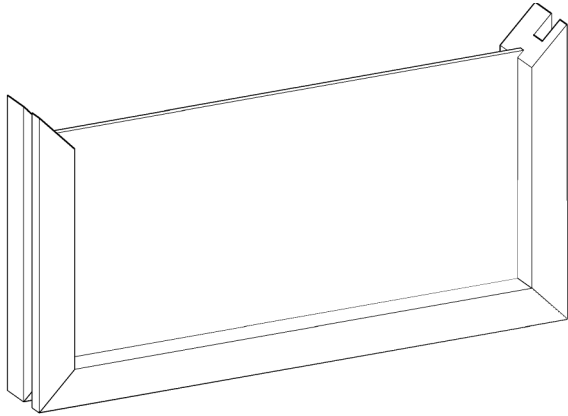
7) Lastly, before construction, you will need to determine what type of pane material you want to use. For a playhouse, we would recommend against using glass and go with clear acrylic or polyvinyl pane.

IF YOU DECIDE TO USE GLASS, WE HIGHLY RECOMMEND PURCHASING $\frac{1}{4}$ " THICK PROFESSIONALLY CUT PANES. YOU WILL NEED 2 PER WINDOW. ON THIS SET THAT EQUALS 12 PANES OF GLASS TOTAL.

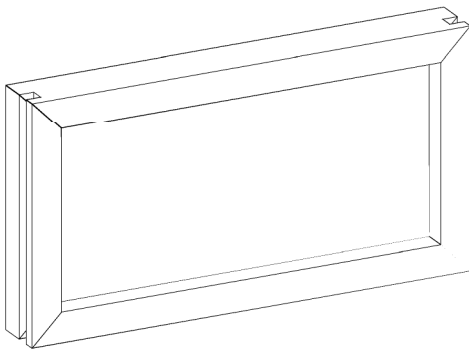
SHOULD YOU DECIDE TO CUT YOUR OWN GLASS, YOU DO SO AT YOUR RISK! USE ALL SAFETY PROCEDURES AND EQUIPMENT WHEN HANDLING GLASS!



8) Assemble the window frame around the pane. Run a bead of epoxy or polyethylene (or equivalent) seal down the frame pieces as you assemble the window to get a good, weather-tight, bond. You could increase rotting and mildew growth if you choose not to.

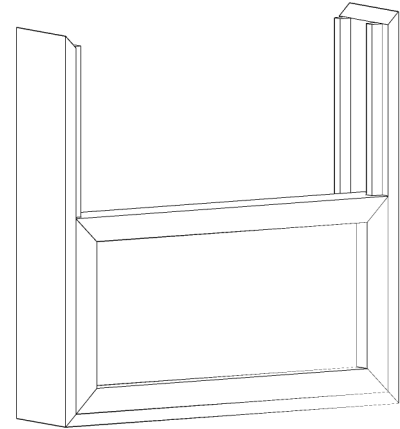


9) Cap off the window with the top piece and connect all pieces with 1" small radius ($\frac{1}{4}$ " or smaller) screws. Be sure you don't screw down into the window pane!

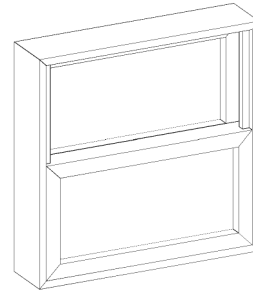


10) Repeat for second window.

11) Once you have two window assemblies, two exterior frame pieces with runners on them, and two exterior frame pieces for the top and bottom, carefully assemble the exterior window frames AROUND the window assemblies.



12) Cap off the window assembly, Ensure the windows slide easily and there is about $\frac{1}{16}$ - $\frac{1}{8}$ " gap between the window assemblies so they will not impede each other's movement.



14) Place the window in the window frame. Screw the exterior frame to the opening provided. You may have to use a soft mallet or a dead-blow hammer to get the window centered in the opening.

13) How the windows stay up or down is up to the user. We recommend getting a slide bolt and installing at least one on the movable assembly. Which assembly moves or stays stationary is up to the builder.

Materials	
Description:	Qty:
Pane Material	12

3-Dimensional Concepts

15726 N. Park Dr. Frenchtown, MT, USA 59834 Cell: 406-546-6672

Title:	Drawn: JSG	Approved:
Windows Cont.	Revision: 0	Drawing: 17
Date: 01-Mar-2010	Scale:	Varies

Additional Stuff for the Window Assemblies:

1) Use weather striping along the seam between the window assemblies to keep wind, and weather out as much as possible.

2) We recommend having one stationary, and one movable window. Most often, anchor the exterior window to the top of the assembly and let the interior window slide up and down.

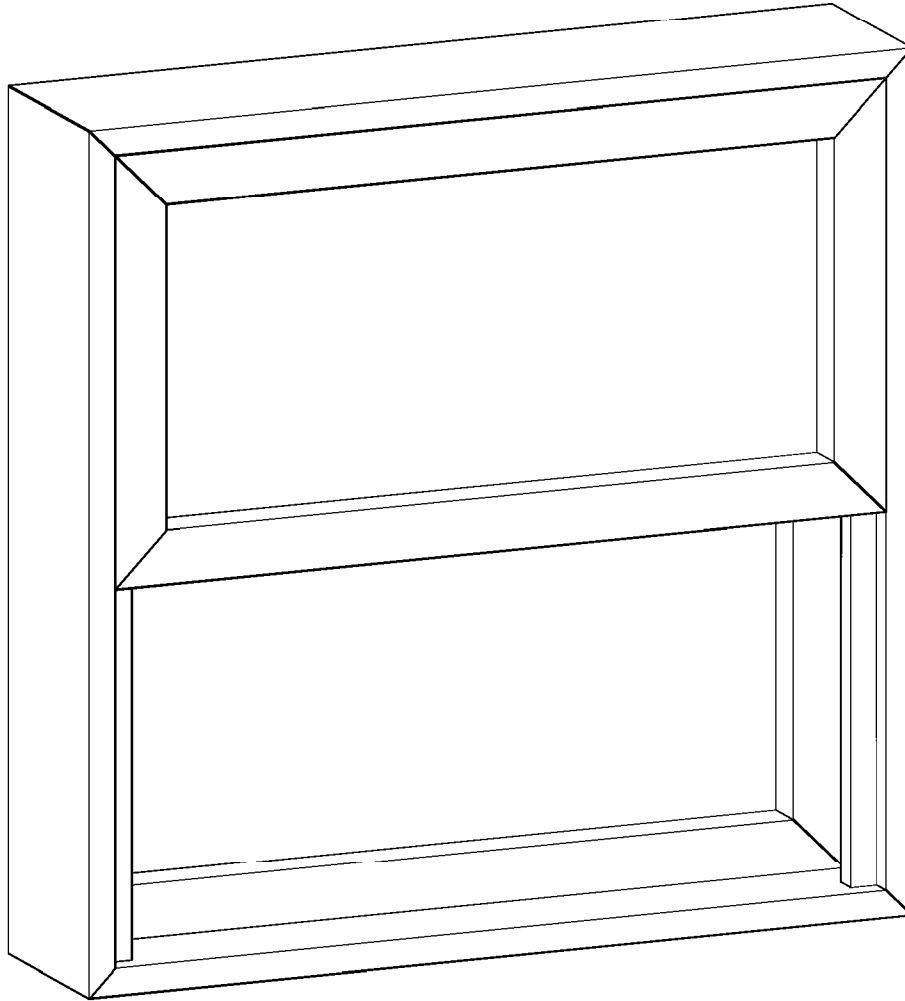
1) Drill a $\frac{1}{4}$ " pin hole in the interior, left or right, side of the movable window assembly.

2) While the window is closed, drill into the runner about $\frac{1}{4}$ ".

3) Keeping the drill bit inside the pin hole, pull the drill bit back out a little, raise the window and drill back in about $\frac{1}{4}$ " into the runner. We recommend about 3" increments.

4) Repeat as necessary for how much you wish the window to open. Cut a length of $\frac{1}{4}$ " dowel (may need sanding to slide freely) to use as a pin.

5) Add a slide pin to both the top and bottom of the movable window so the windows can be "locked" shut if you wish.



3-Dimensional Concepts

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Cell: 406-546-6672

Title:	Windows Cont.	Drawn: JSG	Approved:
Revision:	0	Revision: 0	Drawing: 18
Date:	01-Mar-2010	Scale:	Varies

Congratulations! You constructed an entire Country Cottage by yourself! Interior sheeting is probably the easiest thing you will have to finish.

If you live in a cold or hot climate, you may want to add insulation before you enclose the interior walls with gypsum board.

Make this Country Cottage your own. Paint, veneers, curtains and interior furniture and accessories are at the discretion of the builder.



Build safely Play safely!

Country Cottage above shown with railing available at your local timber retailer.

Door shown purchased.

Windows shown purchased.

NOTES:

3-Dimensional Concepts

15726 N. Park Dr. Frenchtown, MT, USA 59834 Cell: 406-546-6672

Title:	Notes	Drawn: JSG	Approved:
Date:	01-Mar-2010	Revision: 0	Drawing: 19
		Scale:	Varies